

GEOLOGIC TIME TABLE

ERA	PERIOD	RECORD OF CHANGE	MILLION YEARS AGO
CENOZOIC ERA Age of Mammals	Quaternary	Modern Man Great Lakes formed after Ice Ages	1.5
	Tertiary	Early man; Grasslands filled with horses in the Americas. North and South America join. Rocky Mountains formed. Tethys Sea closed off.	65
MESOZOIC ERA Age of Dinosaurs	Cretaceous	Mass extinction Major continents formed. Pleisosaurs and sea turtles in oceans. Hardwoods grow (oak, maple); other angiosperms <i>Tyrannosaurus rex</i> ; <i>Triceratops</i> ; hadrosaurs; ankylosaurs	140
	Jurassic	First mammals and first birds (<i>Archeopteryx</i>) Many dinosaurs (<i>Apatosaurus</i> and other sauropods; <i>Stegosaurus</i>) Pangaea starts to break apart	180
	Triassic	Trees with cones (conifers, cycads, ginkos) Crocodiles; turtles; pterosaurs; ichthyosaurs Appalachian Mountains formed; Pangaea; lots of volcanoes <i>Lystrosaurus</i>	240
PALEOZOIC ERA Age of Amphibians Age of Fishes Age of Invertebrates	Permian	MASS EXTINCTION (90% of life destroyed) First reptiles; <i>Coelacanth</i>	280
	Carboniferous	Insects on land; More amphibians Coal starting to form; lungfish, <i>Glossopteris</i> plants	350
	Devonian	First trees; First amphibians; more fish with some in freshwater; Most of Michigan was covered by a shallow sea, inhabited by <i>Hexagonaria</i> (the coral that forms the Petoskey Stone) and brachiopods.	410
	Silurian	More land plants (ferns); jawed fish; placoderms; and sharks More marine invertebrates including ammonites	440
	Ordovician	First land plants; first fish (jawless) Sponges, snails, corals; crinoids	490
	Cambrian	Many invertebrates in ocean (trilobites and mollusks like brachiopods) Algae; no land plants	600
PRECAMBRIAN	Precambrian	Few fossils (casts or molds of soft-bodied organisms); Domains Eubacteria and Eukaria about 1 billion years ago. Photosynthesis puts O ₂ in atmosphere.	1000
		Oceans fill up; life begins (about 3.8 billion years ago) Domain Archaea about 3 billion years ago.	3000
		Atmosphere of CO ₂ , H ₂ O, and N ₂ . UV light hitting Earth. Lots of volcanoes, clouds, and rain Bombardment by asteroids.	
		Earth cooling. Earth and Solar System forming.	4500